

## Homework 2:

A) Create a distributed application that uses a cloud ecosystem (e.g. Google, Amazon, et.al.).

Requirements - the application has at least three components:

- one is using at least three native cloud services (one is Statefull)
- the other can be an on-premise application but is required to use at least one service from Google Cloud (or similar services for other Clouds Providers): Cloud BigTable, BigQuery, Cloud DataProc, or services such as Cloud Endpoints, Prediction API
- the other is a FaaS (AWS Lambda, Google Cloud Functions, IBM OpenWhisk or Microsoft Azure Functions)

At least one Real-Time Web Technology (e.g. WebSocket) must be used in a proper manner in your system. (Don't forget about performance metrics that fit to your distributed application). More details are offered during the laboratory.

B) Create a scientific report based on the services chosen in point A, which are used in various distributed architectures of real systems (e.g. Twitter). Analyze the characteristics of your system: performance, latency, reliability, transparency dimensions et.al (see C1-2, C6)